

# INDEX.

	Page		Page
ABBE, CLEVELAND, Record of remarks by.....	xvi	AUSTRO-HUNGARY, Coöperation of, in meteorologic work.....	91
ABERCOMBY, RALPH, cited on weather.....	86	AZURITE from Alaska.....	144
ABIES <i>sitchensis</i> from buried forest.....	78		
ABLATION, Rate of.....	31	BABYLON, Early commerce of.....	1
ACHILLEA <i>millefolium</i> , Occurrence of.....	79	BAD-LANDS of Dakota.....	164
ACONITUM <i>napellus</i> , Occurrence of.....	79	BEOMYCES <i>æraginosus</i> , Occurrence of.....	161
ADAMS, C. A., Acknowledgment to.....	21	BAIRD, S. F., quoted on work of the Signal Service.....	99
ADIANTUM <i>pedatum</i> , Occurrence of.....	79	BAKER, MARCUS, Election of, as Manager.....	xix
AFRICA, Record of lecture on.....	xvii	—; Fourth annual report of the Secretaries.....	vii
—, Reference to deserts of.....	165	—, Record of discussion by.....	xviii
AGASSIZ, LOUIS, cited on glaciers.....	36, 39	BALBOA, Discoveries by.....	5
AHKLÉN, Derivation and orthography of.....	132	BAROMETER observations at Muir glacier.....	81
AHKLÉN, LAKE, Surveys of.....	119	BASALT in Alaska.....	150
AIR, Geography of the.....	85	BASSANIA <i>deflexa</i> , Occurrence of.....	160
ALASKA, Boundary survey of.....	177	BATCHELDER, R. N., Election of, as Vice-President.....	xix
—, Explorations in.....	vii, 117	BEACONSFIELD (BENJAMIN DISRAELI) LORD, Influence of, on commerce.....	10
—, Meteorologic work in.....	91	BELGIUM, Coöperation of, in meteorologic work.....	91
—, Muir Glacier in.....	19	BELL, C. J., Election of, as Treasurer.....	xix
—, Record of papers on.....	xiv, xv	—; Fifth annual report of the Treasurer.....	xxii
—, Resources of.....	181	—; Fourth annual report of the Treasurer.....	x
ALECTORIA <i>ochroleuca</i> , Occurrence of.....	161	BERG LAKE, Description of.....	28
ALGERIA Coöperation by, in meteorologic work.....	91	BLANFORD, HENRY F., cited on weather.....	88
ALLEN, HENRY T., cited on Alaskan glaciers.....	154	BLOUNT, H. F., Election of, as Manager.....	xix
— — drift in Alaska.....	159	BOLIVIA, Record of lecture on.....	xvi
—, Reference to exploration by.....	125, 189	BONNEVILLE, LAKE, Shore lines and deposits of.....	165
—, Surveys in Alaska by.....	120, 123	BORNE, MAX VON DEM, Reference to journals of.....	163
ALPINE GLACIERS, Conditions of.....	45	BORT, TEISSEIRENCE DE, cited on weather.....	88
ANAPHALIS <i>margaritacea</i> , Occurrence of.....	79	BOTANY of Alaska.....	160
ANDERSON, T. F., Record of drowning of.....	vii	— — Muir glacier.....	79
ANEMONE <i>multifida</i> , Occurrence of.....	79	BOUNDARY SURVEY (The Alaskan); T. C. Mendenhall.....	177
— <i>narcissiflora</i> , Occurrence of.....	79	BOWKER, FRANK, Acknowledgment to.....	122
ANNAPOLIS, Field meeting at.....	xvii	—, Prospecting by.....	143
ANTENNARIA <i>dioica</i> , Occurrence of.....	79	BOWLDER clay, Alaskan.....	155
ANTWERP, Supremacy of.....	6	BRAZIL, Coöperation of, in meteorologic work.....	91
AQUILEGIA <i>formosa</i> , Occurrence of.....	79	BRENNER, JOHN, quoted on vulcanism in Alaska.....	145
ARAMIA, Early commerce of.....	1	BROWN, GOVERNOR —, Acknowledgment to.....	xvii
—, Reference to deserts of.....	165	BRYANTHUS <i>aleuticus</i> , Occurrence of.....	79
ARABIS <i>ambigua</i> , Occurrence of.....	79	— <i>empetrisformis</i> , Occurrence of.....	79
— <i>petraea</i> , Occurrence of.....	79	— <i>glanduliflorus</i> , Occurrence of.....	79
ARCHAIC rocks of Alaska.....	64	BUCHAN, ALEXANDER, quoted on weather.....	88
ARCTIC exploration.....	198, 203	BUELLIA <i>parasema</i> , Occurrence of.....	161
ARCTIC OCEAN, Shores of.....	197	BURIED FOREST, Wood from.....	75
ARENARIA <i>lateriflora</i> , Occurrence of.....	79	BY-LAWS, Amendments to.....	xiii, xiv, xv
ARGILLITE of Muir inlet.....	57	—, Modification of.....	xxi
ARIZONA, Deserts of.....	167		
ARKWRIGHT, SIR RICHARD, Influence of inventions by.....	9	CALIFORNIA, Deserts of.....	167
ARMY explorations, Character and results of.....	104	—, Mapping by.....	110
ARNICA <i>latifolia</i> , Occurrence of.....	79	CAMPANULA <i>lasiocarpa</i> , Occurrence of.....	79
— <i>unalaschensis</i> , Occurrence of.....	79	— <i>scheuchzeri</i> , Occurrence of.....	79
ASIA, Reference to deserts of.....	165	CAMPING, Arctic.....	195
ASPIDIUM <i>lonchitis</i> , Occurrence of.....	79	CANADA, Coöperation of, in meteorologic work.....	91
— <i>spinulosum</i> , Occurrence of.....	79	—, Topographic survey of.....	201
ASPLENIUM <i>viride</i> , Occurrence of.....	79	CANNIBALISM, Alaskan.....	193
ASTER <i>foliaceus</i> , Occurrence of.....	79		
— <i>pergrinus</i> , Occurrence of.....	79		
ASTRAGALUS <i>frigidus</i> , Occurrence of.....	79		
ATHENS, Record of lecture on.....	xviii		
AUGITE-DIORITE from Alaska.....	65		
AUGITE-MICA-DIORITE from Alaska.....	66		
AUGITE-PORPHYRITE from Alaska.....	71		
AULACOMNIUM <i>palustre</i> , Occurrence of.....	160		
AUSTRALIA, Coöperation of, in meteorologic work.....	91		

	Page		Page
CAPE COLONY, Coöperation of, in meteorologic work .....	91	CUSHING, H. P., Finding of fossils by .....	22
CARDAMINE <i>hirsuta</i> , Occurrence of .....	79	—, Meteorologic observations by .....	80
CARPENTER, Z. T., Record of death of .....	vii	—, Notes on the geology of the vicinity of Muir glacier .....	56
CARROLL, CAPTAIN, Acknowledgment to .....	23	—, Observations by, on ice-work .....	38
—, Record of soundings by .....	26	— — —, on moraines .....	34
CARTHAGE, Commerce of .....	2	CYSTOPTERIS <i>fragilis</i> , Occurrence of .....	79
CASE SCHOOL, Mount named in honor of .....	30		
CASEMENT, R. L., Acknowledgment to .....	21	DAHLGREN, MISS ULRICA, Display of flag presented by .....	205
CASTILLEJA <i>coccinea</i> , Occurrence of .....	79	DAKOTA, Prairies and bad-lands of .....	164
— <i>parviflora</i> , Occurrence of .....	79	DALL, W. H., cited on Alaskan Indians .....	184
CERASTIUM <i>alpinum</i> , Occurrence of .....	79	— — — nomenclature .....	133
CEREUS <i>giganticus</i> , Abundance of .....	167	— — — Surveys by, cited .....	23
CETRARIA <i>artica</i> , Occurrence of .....	161	DANA, E. S., cited on crystalline rocks .....	68
— <i> cucullata</i> , Occurrence of .....	161	DAVIDSON, GEORGE, Surveys by, cited .....	23
— <i> glauca</i> , Occurrence of .....	161	DAVIDSON GLACIER, Termination of .....	47
— <i> islandica</i> , Occurrence of .....	161	DAWSON, GEORGE M., cited on Alaskan geography .....	118
— <i> nuculosa</i> , Occurrence of .....	161	— — — geology .....	137
— <i> nivalis</i> , Occurrence of .....	161	— — — glaciation .....	157
CHALLENGER investigations, Lecture on results of the .....	xvi	— — — nomenclature .....	133
CHAMBERLIN, T. C., Mapping by .....	109	— — — topography .....	131
CHAPIN, J. H., Record of death of .....	xx	— — — volcanic ash .....	146
CHESTER, CAPTAIN C. M., Acknowledgment to .....	xvii	—, quoted on recent Alaskan tuff .....	148, 149
CHILL, Coöperation of, in meteorologic work .....	91	—, Record of remarks by .....	xv
CHINA, Coöperation of, in meteorologic work .....	91	—, Surveys by .....	127
—, Record of paper on .....	xix	DEFLECTION, Definition of .....	173, 176
CHRISTIE, P. H., Report of, as Auditing Committee .....	xii	DEFORMATION about Muir glacier .....	56
CLADONIA <i>alcoeris</i> , Occurrence of .....	161	— of Alaskan rocks .....	140
— <i> bellidiflora</i> , Occurrence of .....	161	—, Recent .....	25
— <i> cornucopioides</i> , Occurrence of .....	161	DELAUNEY, cited on storms .....	88
— <i> deformis</i> , Occurrence of .....	161	DENMARK, CHARLES E., Coöperation of, in meteorologic work .....	91
— <i> fimbriata</i> , Occurrence of .....	161	DENUDATION, Discussion of .....	168
CLARKE, WILLIAM, Exploration by .....	104	DESERTS, American .....	153
CLEVELAND, GROVER, Reference to presidential message by .....	179	DESERT VARNISH, Discussion of .....	170
CLIFF-DWELLERS, Record of lecture on .....	xvi	DEVILLE, E., cited on photographic surveying .....	201
CLIVE, LORD ROBERT, Influence of, on commerce .....	9	DIABASE from Alaska .....	72
COAHUILA DESERT, Character of .....	167	DICKERMAN, LYSANDER, Record of lecture by .....	xiv
COAST AND GEODETIC SURVEY, Acknowledgment to .....	53, 80, 82	DICRANUM <i>fuscescens</i> , Occurrence of .....	160
—, Mapping by .....	102, 115, 128	— <i> majus</i> ?, Occurrence of .....	160
—, Surveys by .....	110, 179	— <i> scoparium</i> , Occurrence of .....	160
COLLINSON'S arctic journey; A. W. Greeley .....	198	DIEHL, S. W. B., Record of lecture by .....	xvi
COLONIES, Development of .....	10	DIET, Arctic .....	186, 195
COLORADO, Deserts of .....	166	DIKES, Alaskan .....	141
COLORADO CANYON, Erosion of .....	173	DILLER, J. S., Acknowledgment to .....	68
COLUMBUS, CHRISTOPHER, Expeditions by .....	4	—, cited on crystalline rocks .....	71
COMMERCE, Evolution of .....	1	DIORITE of Glacier bay .....	60
COMPASS, Record of lecture on the .....	xvi	— from Muir glacier .....	65
CONIOSELIUM <i>fishcheri</i> , Occurrence of .....	79	DIRT GLACIER, Description of .....	28
CONVEYANCE, Modes of .....	14	DOGS, Mode of harnessing .....	191
COOK, GEORGE H., Mapping by .....	110	—, Use of, in Arctic travel .....	203
COON BUTTE, Record of paper on .....	xv	DOW, JOHN, Record of death of .....	xx
COPPER in Alaska .....	123, 143	DRAKE, SIR FRANCIS, Piracy by .....	7
COPPER RIVER, Description of .....	136	DRYAS <i>drummondii</i> , Occurrence of .....	79
CORNUS <i>canadensis</i> , Occurrence of .....	79	DUTTON, C. E., cited on Colorado canyon .....	174
COSTA RICA, Coöperation of, in meteorologic work .....	91	DYING GLACIER, Description of .....	36
CRAMP, W., quoted on ship-building .....	14	EARTHQUAKES, Record of paper on .....	xviii
CREVASSES of Muir glacier .....	30	EGYPT, Coöperation of, in meteorologic work .....	91
CPOFFUT, W. A., Record of lecture by .....	xv	—, Record of lecture on .....	xiv
— — — poem by .....	xvii	—, Reference to deserts of .....	163
CRYPTOGRAMME ACROSTICHOIDES, Occurrence of .....	79	ELECTION of officers .....	xix
CRYPTOGAMS collected by Dr. C. Willard Hayes in Alaska, 1891; Clara E. Cummings .....	160	ELECTRICITY, Influence of, on commerce .....	17
CUMMINGS, CLARA E.; Cryptogams collected by Dr. C. Willard Hayes in Alaska, 1891 .....	160	ENGINEER CORPS, Mapping by the .....	104
CUSHING, H. P., Acknowledgment to .....	21	ENGLAND, Colonies and commerce of .....	6
—, cited on aqueo-glacial deposits .....	26	—, Coöperation of, in meteorologic work .....	91
—, Collections by .....	63	EPILOBIUM <i>affini</i> , Occurrence of .....	79
		— <i> angustifolium</i> , Occurrence of .....	79
		— <i> hornemanni</i> , Occurrence of .....	79
		— <i> latifolium</i> , Occurrence of .....	79
		ERICSSON, JOHN, Influence of inventions by .....	15
		ERIGERON <i>ursinus</i> , Occurrence of .....	79

	Page		Page
CAPE COLONY, Coöperation of, in meteorologic work .....	91	CUSHING, H. P., Finding of fossils by.....	22
CARDAMINE <i>hirsuta</i> , Occurrence of .....	79	—, Meteorologic observations by.....	80
CARPENTER, Z. T., Record of death of.....	vii	—, Notes on the geology of the vicinity of Muir glacier.....	56
CARROLL, CAPTAIN, Acknowledgment to ..	23	—, Observations by, on ice-work.....	38
—, Record of soundings by .....	26	— — —, on moraines.....	34
CARTHAGE, Commerce of .....	2	CYSTOPTERIS <i>fragilis</i> , Occurrence of.....	79
CASE SCHOOL, Mount named in honor of ..	30		
CASEMENT, R. L., Acknowledgment to.....	21	DAHLGREN, MISS ULRICA, Display of flag presented by.....	205
CASTILLEJA <i>coccinea</i> , Occurrence of.....	79	DAKOTA, Prairies and bad-lands of .....	164
— <i>parviflora</i> , Occurrence of.....	79	DALL, W. H., cited on Alaskan Indians ..	184
CERASTIUM <i>alpinum</i> , Occurrence of.....	79	— — — — nomenclature .....	133
CEREUS <i>giganticus</i> , Abundance of.....	167	—, Surveys by, cited.....	23
CETRARIA <i>artica</i> , Occurrence of .....	161	DANA, E. S., cited on crystalline rocks ..	68
— <i>caucullata</i> , Occurrence of.....	161	DAVIDSON, GEORGE, Surveys by, cited .....	23
— <i>glauca</i> , Occurrence of.....	161	DAVIDSON GLACIER, Termination of .....	47
— <i>islandica</i> , Occurrence of.....	161	DAWSON, GEORGE M., cited on Alaskan geography .....	118
— <i>naculosa</i> , Occurrence of.....	161	— — — — geology.....	137
— <i>nivialis</i> , Occurrence of.....	161	— — — — glaciation .....	157
CHALLENGER investigations, Lecture on results of the .....	xvi	— — — — nomenclature .....	133
CHAMBERLIN, T. C., Mapping by .....	109	— — — — topography .....	131
CHAPIN, J. H., Record of death of.....	xx	— — — — volcanic ash .....	146
CHESTER, CAPTAIN C. M., Acknowledgment to .....	xvii	—, quoted on recent Alaskan tuff ..	148, 149
CHILLI, Coöperation of, in meteorologic work .....	91	—, Record of remarks by .....	xv
CHINA, Coöperation of, in meteorologic work .....	91	—, Surveys by .....	127
—, Record of paper on .....	xix	DEFILATION, Definition of .....	173, 176
CHRISTIE, P. H., Report of, as Auditing Committee .....	xii	DEFORMATION about Muir glacier.....	56
CLADONIA <i>aleutica</i> , Occurrence of.....	161	— of Alaskan rocks .....	140
— <i>bellidiflora</i> , Occurrence of.....	161	—, Recent.....	25
— <i>cornucopioides</i> , Occurrence of .....	161	DELAUNEY, cited on storms.....	88
— <i>deformis</i> , Occurrence of .....	161	DENMARK, CHARLES E., Coöperation of, in meteorologic work .....	91
— <i>finbriata</i> , Occurrence of.....	161	DENUDATION, Discussion of.....	168
CLARKE, WILLIAM, Exploration by.....	104	DESERTS, American .....	153
CLEVELAND, GROVER, Reference to presidential message by .....	179	DESERT VARNISH, Discussion of .....	170
CLIFF-DWELLERS, Record of lecture on.....	xvi	DEVILLE, E., cited on photographic surveying .....	201
CLIVE, LORD ROBERT, Influence of, on commerce.....	9	DIABASE from Alaska.....	72
COAHUILA DESERT, Character of.....	167	DICKERMAN, LYSANDER, Record of lecture by.....	xiv
COAST AND GEODETIC SURVEY, Acknowledgment to .....	53, 80, 82	DICHRANUM <i>fuscescens</i> , Occurrence of.....	160
—, Mapping by.....	102, 115, 128	— <i>majus</i> ?, Occurrence of.....	160
—, Surveys by.....	110, 179	— <i>scoparium</i> , Occurrence of .....	160
COLLINSON'S arctic journey; A. W. Greely ..	198	DIEHL, S. W. B., Record of lecture by.....	xvi
COLONIES, Development of.....	10	DIET, Arctic.....	186, 195
COLORADO, Deserts of .....	166	DIKES, Alaskan.....	141
COLORADO CANYON, Erosion of .....	173	DILLER, J. S., Acknowledgment to .....	68
COLUMBUS, CHRISTOPHER, Expeditions by..	4	—, cited on crystalline rocks .....	71
COMMERCE, Evolution of.....	1	DIORITE of Glacier bay.....	60
COMPASS, Record of lecture on the.....	xvi	— from Muir glacier.....	65
CONIOSELIUM <i>fishcheri</i> , Occurrence of .....	79	DIRT GLACIER, Description of .....	28
CONVEYANCE, Modes of.....	14	DOGS, Mode of harnessing.....	191
COOK, GEORGE H., Mapping by .....	110	—, Use of, in Arctic travel .....	203
COON BUTTE, Record of paper on.....	xv	DOW, JOHN, Record of death of .....	xx
COPPER in Alaska.....	123, 143	DRAKE, SIR FRANCIS, Piracy by.....	7
COPPER RIVER, Description of.....	136	DRYAS <i>drummondii</i> , Occurrence of .....	79
CORNUS <i>canadensis</i> , Occurrence of .....	79	DUTTON, C. E., cited on Colorado canyon ..	174
COSTA RICA, Coöperation of, in meteorologic work .....	91	DYING GLACIER, Description of.....	36
CRAMP, W., quoted on ship-building.....	14		
CREVASSES of Muir glacier.....	30	EARTHQUAKES, Record of paper on.....	xviii
CROFTT, W. A., Record of lecture by.....	xv	EGYPT, Coöperation of, in meteorologic work .....	91
— — — poem by.....	xvii	—, Record of lecture on .....	xiv
CRYPTOGRAMME ACROSTICHOIDES, Occurrence of .....	79	—, Reference to deserts of.....	163
CRYPTOGAMS collected by Dr. C. Willard Hayes in Alaska, 1891; Clara E. Cummings ..	160	ELECTION of officers .....	xix
CUMMINGS, CLARA E.; Cryptogams collected by Dr. C. Willard Hayes in Alaska, 1891 ..	160	ELECTRICITY, Influence of, on commerce ..	17
CUSHING, H. P., Acknowledgment to.....	21	ENGINEER CORPS, Mapping by the.....	104
—, cited on aqueo-glacial deposits.....	26	ENGLAND, Colonies and commerce of .....	6
—, Collections by.....	63	—, Coöperation of, in meteorologic work .....	91
		EPILOBIUM <i>affini</i> , Occurrence of.....	79
		— <i>angustifolium</i> , Occurrence of .....	79
		— <i>hornemanni</i> , Occurrence of .....	79
		— <i>latifolium</i> , Occurrence of .....	79
		ERICSSON, JOHN, Influence of inventions by .....	15
		ERIGERON <i>ursinus</i> , Occurrence of.....	79

	Page		Page
EROSION, Glacial.....	49	GLACIERS of Alaska.....	150
ERUPTIVE ROCKS about Muir glacier.....	60	GLACIER BAY, Detailed description of.....	25
ESQUIMAUX, Alaskan.....	194, 196	—, Observations in.....	22
EUPHRASIA <i>officinalis</i> , Occurrence of.....	79	GLAVE, E. J., Surveys by.....	127
EUROPE, Record of lecture on.....	xvii	GOLD from Alaska.....	142, 188
EVERETT, J. D., cited on weather.....	88	GOODISON, JOHN, Record of death of.....	xx
EVOLUTION (The) of commerce; Gardiner G. Hubbard.....	1	GRANITE, Alaskan.....	139
EXPEDITION (An) through the Yukon district; C. Willard Hayes.....	117	GRANITE CANYON, Description of.....	29
EXPLORATIONS by the Society.....	vii	GRANT, U. S., Reference to presidential message by.....	179
FAIRWEATHER MOUNTAINS, Position and character of.....	24	GREAT BRITAIN, Possessions of, adjoining Alaska.....	177
FAUNA of Greenland.....	205	GREECE, Colonies of.....	2
FERREL, WILLIAM, cited on weather.....	88	—, Cooperation of, in meteorologic work.....	91
—, Tribute to.....	92	GREELY, GENERAL A. W., cited on arctic geography.....	205
FIELD MEETING at Annapolis.....	xvii	—; Collinson's arctic journey.....	198
FIRTH, —, Acknowledgments to.....	190, 194	—, Election of, as Vice-President.....	xix
FISHERIES of Alaska.....	181	—; Geography of the air.....	85
FITZ ROY, ADMIRAL ROBERT, Influence of, on weather forecasting.....	89	—; Lieutenant Peary's crossing of northern Greenland.....	202
FLORA, Desert.....	166	—, quoted on weather.....	86
— of Alaska.....	160	—, Record of discussion by.....	xviii, xix
— the Yukon basin.....	136	— — report by.....	xiii
— Greenland.....	205	GREENLAND, Cooperation of, in meteorologic work.....	91
FORBES, J. D., cited on glaciers.....	36	—, Exploration in.....	202
FOREST, Buried.....	43	HANN, JULIUS, cited on weather.....	88
—, Wood from.....	75	HARLOW, C. H., Record of lecture by.....	xvi
FORT YUKON, Establishment of.....	182	HASKELL, E. E., Report of, as Auditing Committee.....	xii
FOSSILS from Glacier bay.....	59	HASSLER, JAMES, Record of drowning of.....	vii
—, Record of finding of.....	22	HASTINGS, WARREN, Influence of, on commerce.....	9
FRANCE, Colonies and commerce of.....	6	HAWAIIAN ISLANDS, Cooperation of, in meteorologic work.....	91
—, Cooperation of, in meteorologic work.....	91	HAYDEN, EVERETT, Election of, as Vice-President.....	xix
FRANKLIN, SIR JOHN, Reference to explorations by.....	189	—, Record of report by.....	xiii
FREDERIKA GLACIER, Character of.....	153	HAYDEN, F. V., Reference to surveys by.....	103, 106
FREMONT, JOHN C., Explorations by.....	104	HAYDEN SURVEY, Mapping by the.....	115
FRENCH-SHELDON, Mrs. M., Record of lecture by.....	xvii	HAYES, C. WILLARD; An expedition through the Yukon district.....	117
GABBRO from Alaska.....	68	—, Collection by.....	160
GAMA, VASCO DE, Explorations by.....	4	—, Record of paper by.....	xiv
GANNETT, HENRY, Election of, as Vice-President.....	xix	HEALY, CAPTAIN M. A., Acknowledgment to.....	vii
—, Record of papers by.....	xiii, xviii	HEDYSARUM <i>mackenzii</i> , Occurrence of.....	79
—; The mother maps of the United States.....	101	HERRICK, FRANCIS H.; Microscopical examination of wood from the buried forest, Muir inlet, Alaska.....	75
GARDINER, S. T., Mapping by.....	109	HERSCHEL, SIR WILLIAM, Island named in honor of.....	198
GENOA, Commerce of.....	3	HEUCHERA <i>glabra</i> , Occurrence of.....	79
GENTIANA <i>amarella</i> , Occurrence of.....	79	HITCHCOCK, C. H., Mapping by.....	109
— <i>arctophila</i> , Occurrence of.....	79	HITCHCOCK, ROMYN, Record of paper by.....	xix
— <i>parryi</i> , Occurrence of.....	79	HOLLAND, Commerce of.....	6
— <i>prostrata</i> , Occurrence of.....	79	HOLMES, W. H., Record of lecture by.....	xvi
GEOGRAPHY of southeastern Alaska.....	23	HOMAN, CHARLES A., Surveys in Alaska by.....	120, 128
— the air; A. W. Greely.....	85	HONKENYA <i>oblongifolia</i> , Occurrence of.....	79
—, Record of paper on teaching of.....	xix	HORNLENDE-PORPHYRITE from Alaska.....	70
GEOLOGICAL SURVEY, Acknowledgments to.....	60, 64, 68, 118	HOTALINGUA RIVER, Abandonment of term.....	133
—, Mapping by.....	103, 115	HOTCHKISS, JED., Record of paper by.....	xiv
—, Surveys by.....	110	HUBBARD, GARDINER G., Election of, as President.....	xix
GEOLOGY (Notes on the) of the vicinity of Muir glacier; H. P. Cushing.....	56	—; The evolution of commerce.....	1
— of southern Alaska.....	63	HUDSON BAY COMPANY, Acknowledgment to.....	190
— the Yukon basin.....	137	—, Work of.....	182
GERANIUM <i>erianthum</i> , Occurrence of.....	79	HULL, W. J., Record of address by.....	xvii
GERMANY, Cooperation of, in meteorologic work.....	91	HUMPHREY, O. J., Acknowledgment to.....	127
GEUM <i>calthifolium</i> , Occurrence of.....	79	HUNTER, CAPTAIN, Record of soundings by.....	26
— <i>strictum</i> , Occurrence of.....	79	HYATT, ALPHEUS, Identification of fossils by.....	140
GILBERT, G. K., Election of, as Manager.....	xix		
—, Record of address by.....	xvii		
— — discussion by.....	xviii		
— — paper by.....	xv		
GIRDLED GLACIER, Description of.....	28		
GLACIATION, Ancient, in Alaska.....	155		
GLACIER tables, Occurrence of.....	34		
GLACIERS, Conditions of flow of.....	45		
—, Erosion by.....	50		

	Page		Page
HYDE, JOHN, Election of, as Manager.....	xix	MAP of Muir glacier inlet .....	55
HYPNUM <i>circinale</i> , Occurrence of.....	160	MAPS, Canadian .....	201
— ( <i>Hylocomium</i> ) <i>loreum</i> , Occurrence of.....	160	— (The mother) of the United States; Henry Gannett.....	101
— ( <i>Pleurozium</i> ) <i>splendens</i> , Occurrence of.....	160	MARVIN, C. F., quoted on weather prediction.....	86
— ( <i>Plagiothecium</i> ) <i>undulatum</i> , Occurrence of.....	160	MASCART, Elenthène, cited on weather.....	88
ICE motion, Rate of.....	43	MAURITIUS, Cooperation of in meteorologic work .....	91
ICEBERGS, Mode of formation of.....	47	MAYNARD, WASHBURN, Acknowledgment to.....	viii
ICELAND, Cooperation of, in meteorologic work .....	91	MAYO, —, cited on low temperatures.....	185
—, Record of lecture on.....	xiv	MACDOUGAL, —, Reference to work of.....	182
IDDINGS, J. P., Acknowledgments to.....	65	MCBRIDE, H., Acknowledgment to .....	21
—, cited on Cordilleran rocks.....	64	MCCLURE, CAPTAIN ROBERT G. LE M., Arctic exploration by.....	199
— — crystalline rocks.....	71	MCCONNELL, R. G., cited on glaciation in Alaska.....	157
IGNEOUS ROCKS in Alaska.....	150	— — volcanic ash.....	146
INDIA, Commerce of.....	1, 8	—, quoted on White river, Alaska.....	149
—, Cooperation of, in meteorologic work .....	91	MCDONALD, ARCHDEACON, Reference to work of.....	193
INDIANS, Alaskan .....	183	McGEE, DR. ANITA NEWCOMB, Appointment of, as Auditing Committee.....	xix
—, Character of Alaskan.....	187, 190, 193	—, Report of, as Auditing Committee.....	xxiv
—, Diseases of Alaskan .....	192	McGEE, W. J., Election of, as Manager.....	xix
INFANTICIDE, Alaskan.....	193	—, Record of address by.....	xvii
ITALY, Cooperation of, in meteorologic work .....	91	— — paper by .....	xviii
JAPAN, Cooperation of, in meteorologic work .....	91	McGRATH, J. E., Introduction of .....	177, 180
JERUSALEM, Record of lecture on.....	xv	—, Record of paper by .....	xv
JOHNSON, J. B., Record of discussion by.....	xviii	—, Reference to work of.....	189
JUDD, J. W., cited on crystalline rocks.....	66	—; The Alaskan boundary survey.....	181
KARR, H. W. SETON, cited on vulcanism in Alaska .....	145	McGUSTEN, —, cited on low temperatures .....	185
KENASTON, C. A.; Fourth annual report of the Secretaries .....	vii	MEETINGS of the Society.....	vii, xxi
—, Record of paper by .....	xiii	MEMBERSHIP of the Society.....	vii, xx
KENTUCKY, Mapping by .....	109	MENDENHALL, T. C., Election of, as Manager .....	xix
KERR, W. C., Mapping by .....	113	—, Record of discussion by.....	xxix
KING, CLARENCE, Surveys by .....	105	— — paper by .....	xv
KING SURVEY, Mapping by the .....	115	—; The Alaskan boundary survey.....	177
KLUTLAN GLACIER, Character of .....	152	MERCURY, Solidification of.....	186
KRASSNOF, A. N., Reference to journeys by .....	164	MESOPOTAMIA, Record of lecture on.....	xvi
KRAUSE, ARTHUR, Map by, cited .....	127	METEOROLOGY of Muir glacier.....	52, 80
LAKE AHKLEN, Surveys of .....	119	MEXICO, Cooperation of, in meteorologic work .....	91
LAKE SURVEY, Mapping by .....	104	MICRO-PEGMATITE from Alaska .....	69
LAND OFFICE, Mapping by .....	107, 115	MILES GLACIER, Description of.....	136
LANGLEY, S. P., cited on mount Whitney observations .....	99	MINERAL RESOURCES of Alaska.....	142
—, quoted on aerial navigation.....	18	MINING, Alaskan .....	188
LANGUAGE of Alaskan Indians.....	193	MINNESOTA, Mapping by .....	109
LECANORA <i>fruticulosa</i> ?, Occurrence of.....	161	MIRAGE on Glacier bay .....	52
LEE, LESLIE A., Record of lecture by .....	xv	MNIUM <i>punctatum</i> , Occurrence of.....	160
LEHMANN, J., cited on crystalline rocks.....	66	MOHAVE DESERT, Character of.....	168
LEPERDITIA, sp.?, Occurrence of.....	59	MOHN, H., cited on weather.....	88
LEPIDIOSA <i>reptans</i> , Occurrence of.....	160	MOORE, WILL C., Record of drowning of.....	viii
LESSEPS, FERDINAND DE, Projecting of Nicaragua canal by .....	13	MORAINES, Alaskan.....	32, 152
— — Suez canal by .....	9	—, Ancient, in Alaska.....	155
LEWES, Application of name.....	133	MORSE, J. F., Acknowledgment to.....	21
LEWES RIVER, Surveys of.....	121	MOTLEY, JAMES LOTHROP, cited on the Netherlands.....	6
LEWIS, MERIWETHER, Exploration by.....	104	MOUNT CASP, Naming of .....	30
LIMESTONES, Alaskan.....	140	MOUNT WRANGELL, Vulcanism in .....	145
— of Glacier bay .....	59	MOUNT WRIGHT, Naming of .....	30
LOCKWOOD, LIEUTENANT J. B., quoted on Nordenskiöld inlet.....	206	MOUNTAINS of Alaska .....	128
LONG, STEPHEN H., Explorations by.....	104	MUIR GLACIER, Detailed description of .....	26
LOOMIS, —, Work of, on Muir glacier.....	21	—, Geology about .....	56
LUPINUS <i>versicolor</i> , Occurrence of.....	79	—, Map of.....	53, 127
MAGELLAN, FERDINAND, Explorations by.....	4	—, Plants collected near .....	79
MAGELLAN, STRAITS OF, Lecture on.....	xv	—, Rate of flow of .....	43
MAGNETISM, Observations on .....	82	—, Recession of.....	35, 37
MAIN LAKE, Description of .....	28	— (Studies of), Alaska; Harry Fielding Reid .....	19
MAIN VALLEY, Description of .....	28	—, Surveys of .....	53
MANAGERS of the Society, Work of.....	vii, xxi	—, Thickness of.....	27
MAP, Geologic, of Muir glacier.....	62	MUIR INLET, Buried forest of .....	75
— of Muir glacier.....	53	—, Detailed description of .....	25
		—, Map of.....	55
		MUIR, JOHN, Acknowledgment to.....	22



	Page		Page
Muir, John, cited on Muir glacier .....	21	Pinguicula vulgaris, Occurrence of .....	79
—, Observations by, on submerged forest .....	40	Pinus ponderosa, Occurrence of .....	173
Murray, John, Record of lecture by .....	xvi	Plants (List of) collected near Muir glacier; W. W. Rowlee .....	79
Myer, Albert J., Tribute to .....	92	Polygonum viviparum, Occurrence of .....	79
Mytila taylori, Occurrence of .....	160	Polytrichum commune, Occurrence of .....	160
National Geographic Society, Display of flag of .....	205	— juniperinum, Occurrence of .....	160
—, Function of .....	200	Pond, E. J., Record of death of .....	xx
Nelson, Archibald, Record of drowning of .....	viii	Population, Record of paper on .....	xviii
Nephroma articum, Occurrence of .....	161	Porphyrite from Alaska .....	70
Netherlands, The, Commerce of .....	6	—, Special definition of .....	65
—, Cooperation of, in meteorologic work ..	91	Porphyry from Alaska .....	69
Newberry River, Abandonment of term ..	133	—, Special definition of .....	65
Newell, F. H., Election of, as Secretary ..	xix	Portugal, Commerce and colonies of .....	4
—; Fifth annual report of the Secretaries ..	xx	Potentilla anserina, Occurrence of .....	79
New Hampshire, Mapping by .....	109	Powell, J. W., Acknowledgments to .....	64
New Jersey, Mapping by .....	110	—, cited on Colorado canyon .....	175
New Madrid earthquake, Record of paper on .....	xvii	—, Record of remarks by .....	xvi
New Mexico, Deserts of .....	167	—, Reference to surveys by .....	103
New York, Mapping by .....	109	—, Surveys by .....	106
Nicaragua Canal, Projecting of .....	12	Powell, W. B., Election of, as Manager ..	xix
Nicolaï, Acknowledgment to .....	125	—, Record of paper by .....	xix
Nineveh, Early commerce of .....	1	Powell Survey, Mapping by .....	115
Nisling River, Natives on .....	122	Prairies, Description of .....	164
Nizzenah River, Navigation of .....	124	Proceedings of the National Geographic Society .....	xiii
Norris, Basil, Glacier named in honor of ..	151	Public Land Surveys, Character and extent of .....	107
Norris Glacier, Naming of .....	151	Publications of the Society .....	v, ix, xxi
—, Termination of .....	46	Pyrola secunda, Occurrence of .....	79
North American Deserts (The); Johannes Walther .....	163	Quartz-diorite from Alaska .....	60, 67
Northern Pacific Railway, Mapping by ..	111	Quartz-porphyr from Alaska .....	70
Northern Transcontinental Survey, Mapping by .....	115	Railways, Mapping by .....	111
Norway, Cooperation of, in meteorologic work ..	91	Rainfall observations at Muir glacier ..	81
Observers, Suggestions to .....	83	Raleigh, Sir Walter, Piracy by .....	7
Officers, Election of .....	xix	Randall, D. J., Record of address by .....	xvii
Ogden, H. G., Election of, as Vice-President ..	xix	Ranunculus repens, Occurrence of .....	79
—, Record of discussion by .....	xviii	Rath, G. vom, cited on crystalline rocks ..	68
— — — report by .....	xiii	Raymond, Captain Chas. W., Longitude determination by, cited .....	182, 185
Ogilvie, W., Surveys in Alaska by, cited ..	119, 127	Refraction on Glacier bay .....	52
Orography of Alaska .....	128	Reid, Harry Fielding, Collections by ..	63, 78
Oxytropis monticola, Occurrence of .....	79	—; Studies of Muir glacier, Alaska .....	19
Palmerston (Henry John Temple) Lord, Opposition to Suez canal by .....	9	—, Surveys by .....	127
Parnassia fimbriata, Occurrence of .....	79	Report (Fifth annual) of the Secretaries; F. H. Newell and E. R. Seidmore ..	xx
— palustris, Occurrence of .....	79	— — — Treasurer; C. J. Bell .....	xxii
Parry, Sir William E., Arctic exploration by ..	199	— (Fourth annual) of the Secretaries; Marcus Baker and C. A. Kenaston ..	vii
Peary, R. E., quoted on topography of Greenland ..	204	— — — Treasurer; C. J. Bell .....	x
Peary's, Lieutenant, crossing of northern Greenland; A. W. Greely .....	202	— of the Auditing Committee .....	xii, xxiv
Peck, Annie S., Record of lecture by ..	xviii	Rhinanthus crista-galli, Occurrence of ..	79
Pedicularis verticillata, Occurrence of ..	79	Richthofen, F. F., Baron von, cited on origin of loess .....	176
Pelly, Application of name .....	133	Rivers of Alaska .....	131
Pelly River, Topography of .....	127	Robinson, Lieutenant L. L., Record of drowning of .....	viii
Peltigera aphthosa, Occurrence of .....	161	Rock species, Definition of .....	68
— canina?, Occurrence of .....	161	Rocks (Notes on some eruptive) from Alaska; G. H. Williams .....	63
— horizontalis, Occurrence of .....	161	Rohlfes, G., cited on deserts .....	171
Pennsylvania, Mapping by .....	109	Rohrbach, —, cited on crystalline rocks .....	73
Peters, John P., Record of lecture by ..	xvi	Romanzoffia sitchensis, Occurrence of ..	79
Philadelphia Academy of Natural Sciences, Display of flag of .....	205	Rome, Supremacy of .....	2
Phlox caespitosa, Occurrence of .....	79	Rosenbusch, Heinrich, cited on crystalline rocks .....	71
Photography in surveying .....	201	Rowlee, W. W.; List of plants collected near Muir glacier .....	79
Phytian, Captain R. L., Acknowledgment to ..	xvii	Rubus arcticus, Occurrence of .....	79
Pike, Z. M., Explorations by .....	104	— pedatus, Occurrence of .....	79
		Russell glacier, Description of .....	135
		—, Naming of .....	152
		Russell, I. C., cited on Alaskan geology ..	142
		— — — glaciers .....	153
		— — — nomenclature .....	133
		— — — glaciation in Alaska .....	157, 158

	Page		Page
RUSSELL, I. C., cited on icebergs .....	49	SPAIN, Commerce and colonies of.....	4
— — — Malaspina glacier.....	47	—, Coöperation of in meteorologic work..	91
— — — Saint Elias mountains .....	24	SPHAGNUM <i>acutifolium</i> , Occurrence of .....	160
— — — volcanic ash .....	146	SPHÆROFORUS <i>globiferus</i> , Occurrence of .....	161
—, Collections by .....	64, 68	SPIRÆA <i>pectinata</i> , Occurrence of.....	79
—, Explorations by .....	vii	STANLEY-BROWN, JOSEPH, Record of ad-	
—, Glacier named in honor of.....	152	dress by.....	xv
—, quoted on Alaskan topography.....	131	STATE SURVEYS, Character and extent of ..	109
—, Surveys in Alaska by .....	128	STEAM NAVIGATION, Influence of.....	15
RUSSELL, MARK, cited on Alaskan rivers..	132	STEIN, ROBERT, Translation by.....	153
—, Exploration by .....	119	STEPHENSON, GEORGE, Opposition to Suez	
—, Prospecting by .....	143	canal by.....	9
RUSSIA, Acquisition of Alaska from.....	177	STOCKTON, C. H., Arctic exploration by ..	198
—, Coöperation of, in meteorologic		STONE, —, Reference to exploration	
work .....	91	by .....	187
SAHARA, Reference to flora of .....	166	STORM, Arctic.....	195
SAINT ELIAS, MOUNT, Height of.....	viii	STRACHAN, R., quoted on weather.....	195
SAINT ELIAS MOUNTAINS, Age of .....	24	STRENG, A., cited on crystalline rocks.....	68
—, Character of .....	129	STREUBITZ, W. H. von, Acknowledg-	
SALIX <i>arctica</i> , Occurrence of.....	79	ment to.....	163
— <i>ovalifolia</i> , Occurrence of.....	79	—, cited on Texas deserts.....	167, 169,
— <i>reticulata</i> , Occurrence of.....	79	170	
— <i>sitchensis</i> , Occurrence of.....	79	—, quoted on desert varnish.....	171
— <i>spectosa</i> , Occurrence of.....	79	SUEZ CANAL, Influence of, on commerce ..	9
SAUSSURITE-DIORITE from Alaska .....	67	SUMMER, Character of arctic.....	187
SAXIFRAGA <i>æstivalis</i> , Occurrence of.....	79	SURVEY of the Alaskan boundary .....	177
— <i>davurica</i> , Occurrence of .....	79	— (Topographic) of Canada; H. M. Wil-	
— <i>pseudo-burseriana</i> , Occurrence of.....	79	son .....	201
— <i>tricuspidata</i> , Occurrence of.....	79	SURVEYING, military, Record of papers on	
SEAL fisheries, Alaskan.....	181	surveys in Alaska.....	119
SEAL ISLANDS, Record of paper on .....	xv	— of Muir glacier.....	53
SECRETARIES, Reports of the.....	vii, xx	— the United States .....	102
SEDIMENTARY rocks about Muir glacier.....	57	SWEDES, Coöperation of, in meteorologic	
SEDIMENTATION, Discussion of.....	168	work .....	91
SEDUM <i>rhodiola</i> , Occurrence of.....	79	SWITZERLAND, Coöperation of, in meteor-	
SELKIRK, Surveys about .....	121	ologic work.....	91
SELWYN RIVER, Surveys of.....	122	TAKU GLACIER, Character of.....	161
SEYMOUR, A. B., Acknowledgment to .....	162	—, Termination of.....	47
SCAPARIA <i>albescens</i> , Occurrence of .....	160	TAKU RIVER, Character of.....	151
SCHWATKA, FREDERICK, cited on volcanic		—, Surveys of .....	119
ash .....	146	TEBENKOF, CAPTAIN M. D., Surveys of,	
—, Explorations by .....	118	cited.....	23
—, Organization of expedition by.....	118	TEMPERATURES, Arctic .....	185, 197
—, quoted on White river, Alaska .....	149	— on Muir glacier .....	52, 81
—, Record of death of .....	xx	TESLIN, Application of name.....	133
—, Reference to work .....	182	TESLIN RIVER, Character of .....	133
SCHWEINFURTH, G., Reference to work of ..	153	—, Survey of .....	119
— cited on desert erosion.....	171	TETRAPHIS <i>pellucida</i> , Occurrence of .....	160
SCIDMORE, ELIZA RUMAHAM, Election of,		TEXAS, Deserts of .....	167
as Secretary .....	xix	THAMNOLIA <i>vermicularis</i> , Occurrence of ..	161
—; Fifth annual report of the Secreta-		THOMPSON, GILBERT, Record of discussion	
ries.....	xx	by .....	xviii
—, Photographs of Muir glacier by .....	42	— — paper by.....	xiv
SCIENCE, Definition of.....	86	TIDEWATER GLACIERS, Conditions of .....	47
SCOLAI PASS, Description of.....	135	TOPOGRAPHY of Canada.....	201
SCOTLAND, Coöperation of, in meteorologic		— Interior Alaska .....	127
work .....	91	TRANSPORTATION, Modes of.....	14
SICKENBERGER, —, cited on desert var-		TREASURER's report.....	x, xxii
nish .....	171	TRIBES, Alaskan .....	193
SIDON, Colonies of .....	2	TRIENTALIS <i>europæa</i> , Occurrence of.....	79
SIEMENS, WERNER VON, quoted on natural		TROCTOLITE, Definition of, as rock species	
forces .....	18	TUFF, Recent, in Alaska.....	146
SIGNAL SERVICE, Acknowledgment to the..	80	TURKEY, Coöperation of, in meteorologic	
—, List of publications by.....	96	work .....	91
—, Work of .....	91	TURNER, J. HENRY, Introduction of... 177,	
"SILT, WHITE," in Alaska .....	156	—, Record of paper by .....	xv
SIMPSON, SIR JOHN, Reference to explo-		—; The Alaskan boundary survey.....	189
ration by .....	189	TYBE, Colonies of.....	2
SMITH, CHARLES S., Record of lecture by..	xiv	UNDERWOOD, L. M., Acknowledgment to..	162
SMITH, CAPTAIN EVERETT, Reference to		UNITED STATES, Internal commerce of.....	11
surveys by .....	183	—, Mother maps of .....	161
SMITH, HENRY, Record of drowning of.....	viii	UTAH, Deserts of .....	164
SMITH, MIDDLETON, Report of, as Auditing			
Committee.....	xii	VALERIANA <i>sitchensis</i> , Occurrence of.....	79
SNOW, Camping in.....	195	VANCOUVER, COLONEL GEORGE, Surveys by,	
SNOW CONES, Description of .....	29	cited .....	23, 178
SOLIDAGO <i>humilis</i> , Occurrence of.....	79	VEGETATION of Yukon basin .....	136
— <i>multiradiata</i> , Occurrence of .....	79	VENETZ, J., cited on glaciers.....	39

	Page		Page
VENICE, Commerce of .....	3	WILLIAMS, TALCOTT, Record of lecture by .....	xvii
VERATRUM <i>viride</i> , Occurrence of .....	79	WILLITS, EDWIN, Election of, as Manager .....	xix
VERONICA <i>alpina</i> , Occurrence of .....	79	WILSON, H. M.; Topographic survey of Canada .....	201
VILLARD, HENRY; Mapping by .....	111	WINCHELL, N. H., Mapping by .....	109
VOLCANOES of Alaska .....	145	WIND action, Discussion of .....	173
WAINRIGHT, D. B., Appointment of, on Auditing Committee .....	xix	WINDOM, WILLIAM, Record of death of .....	vii
—, Report of Auditing Committee by ..	xxiv	WINDS of the Alaskan coast .....	52
WALLIS, —, Acknowledgment to .....	192	WINSTON, ISAAC, Appointment of, on Auditing Committee .....	xix
—, cited on Indian language .....	193	—, Report of Auditing Committee by ..	xxiv
WALTHER, JOHANNES; The North American deserts .....	163	WINTER, Character of arctic .....	187
WARREN, G. K., Map constructed by .....	105	WISCONSIN, Mapping by .....	109
WATT, JAMES, Influence of inventions by ..	9	WOOD (Microscopical examination of from the buried forest, Muir inlet, Alaska; Francis H. Herrick .....	75
WEATHER BUREAU, Efficiency of the .....	89	WOODSIA <i>hyperborea</i> , Occurrence of .....	79
WEATHER prediction, Conditions of .....	86	WOODWARD, A. E., Record of death of ..	vii
WEATHER REVIEW, Issue and character of ..	94	WRANGELL, MOUNT, Vulcanism in .....	145
WHEELER, GEORGE M., Reference to surveys by .....	103, 105	WRIGHT, G. F., Acknowledgment to .....	41
WHEELER SURVEY, Mapping by the .....	115	—, cited on buried forests .....	26
WHITE GLACIER, Description of .....	28	— — — glacial erosion .....	50
WHITE RIVER, Character of .....	134	— — — Muir glacier .....	20, 33, 34
—, Source of sediment in .....	149	—, Erroneous measurements by .....	43
—, Surveys of .....	123	—, Glacier named in honor of .....	151
"WHITE SILT" in Alaska .....	156	—, Mount named in honor of .....	30
WHITNEY, J. D., Mapping by .....	110	—, Supposed error by .....	37
WILLARD, EUGENE F., Acknowledgment to .....	119	WRIGHT GLACIER, Naming of .....	151
—, Collection by .....	78	YORK, WILLIAM, Reference to work of .....	23
WILLIAMS, G. H., Identification of rocks by .....	60	YOUNG, —, cited on Muir glacier .....	21
—; Notes on some eruptive rocks from Alaska .....	63	YUKON, Application of name .....	131
WILLIAMS, GILBERT F., Resolution of thanks by .....	xvii	YUKON DISTRICT, Expedition through .....	117
WILLIAMS, H. S., Identification of fossils by .....	59	YUKON RIVER, Description of .....	182
		—, Navigation of .....	190
		—, Surveys near .....	120